

Message

From: Snyder, Jim [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=18260D02987D49E280FC03D2A8D18DDD-SNYDER, JIM]
Sent: 1/28/2013 11:12:08 PM
To: Wehrly, Linc [wehrly.linc@epa.gov]
CC: Nevers, Chris [nevers.chris@epa.gov]; Wright, DavidA [Wright.DavidA@epa.gov]; Ball, Joel [ball.joel@epa.gov]; Dalton, Joel [Dalton.Joel@epa.gov]; Healy, Stephen [healy.stephen@epa.gov]
Subject: Re: Fw: Data on diesel SCR catalyst size and composition

Volkswagen has two diesel engines with SCR. Both use Copper for the SCR loading.

2.0L w/6.96L total cat volume
3.0L w/6.41L total cat volume

That volume is for all the catalyst substrates not just the SCR cats.

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From: Linc Wehrly/AA/USEPA/US
To: Chris Nevers/AA/USEPA/US@EPA, Joel Ball/AA/USEPA/US@EPA, Jim Snyder/AA/USEPA/US@EPA, Joel Dalton/AA/USEPA/US@EPA, DavidA Wright/AA/USEPA/US@EPA, Stephen Healy/AA/USEPA/US@EPA
Date: 01/28/2013 03:20 PM
Subject: Fw: Data on diesel SCR catalyst size and composition

Would you guys be able to dig up this information?

Just provide whether the catalyst is vanadium, copper-zeolite, or iron-zeolite and the catalyst size, not loading.

If each of you could provide me the information for your manufacturer, I will assemble it and send it on to John.

Thanks,
Linc

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----- Forwarded by Linc Wehrly/AA/USEPA/US on 01/28/2013 03:11 PM -----

From: John German <john@theicct.org>
To: Linc Wehrly/AA/USEPA/US@EPA
Date: 01/28/2013 02:55 PM
Subject: Re: Data on diesel SCR catalyst size and composition

Thanks, Linc (ignore the email I just sent you, which crossed somewhere in cyberspace).

Yes, we only need to know if they are using vanadium, copper, or iron - don't need any more details. Except for the size of the SCR catalyst.

We are only testing light-duty vehicles, so you don't need to include the heavy-duty pickups. But we certainly wouldn't object to getting similar data for them.

Time is OK. Our testing program is starting in a couple weeks, but we need this more for post-analysis of the data. Mid-Feb. would be fine.

John
734-355-1055

On Jan 28, 2013, at 2:26 PM, Wehrly.Linc@epamail.epa.gov wrote:

John,

Thanks for the message. I am still in the Compliance Division and have been the Group Manager (Center Director) for the light-duty vehicle group since Dan Harrison retired in 2007. The job is much different than when Dan had it. Much more complicated and stressful!

You are correct that neither the EPA test car data or the certification data sets include catalyst size. I wish I could say more, but the management and oversight of both databases belongs to Sara Zaremski's group (Data Analysis and Info Center). Currently, our compliance database Verify does not require manufacturers to submit whether the SCR catalyst uses vanadium, copper-zeolite, or iron zeolite. We generally know the answer, but it is not necessarily in our database. If you can give me time, I can have one of my guys dig through some information and see what we come up with. Do you simply want to know if they are using vanadium or copper or do you want more details? Do you want this just for light-duty or also include the heavy-duty pick-ups too?

There haven't been any SCR-based light-duty diesel vehicles tested in the manufacturer IUVP program yet, because the volumes have been too small. We haven't tested one in our in-house surveillance program yet either, but hope to do so soon, so I don't have any in-use data yet on how they are performing.

Linc

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From: John German <john@theicct.org>
To: Linc Wehrly/AA/USEPA/US@EPA
Cc: Francisco Posada <francisco@theicct.org>
Date: 01/23/2013 04:52 PM
Subject: Data on diesel SCR catalyst size and composition

Linc,

Hopefully you are still with the certification division (or whatever it is called now). Please let me know who I should talk to at EPA about diesel catalyst data, if you aren't the appropriate person.

When we did the SFTP work in the mid-1990s, I know that we compiled a list that included catalyst size (not loadings, which are confidential) and made the data public. However, I just took a look at both the

EPA test car data (<http://www.epa.gov/OMS/teldata.htm>) and the certification data (<http://www.epa.gov/omswww/crttst.htm>). Neither one includes catalyst size. It would also be extremely helpful to know if the SCR catalyst on light-duty diesels contains vanadium, copper-zeolite, or iron-zeolite.

Can we get this information from EPA? Do we need a FOIA request?

By way of background, there are some data suggesting the SCR systems on light-duty diesels in Europe are not very effective in-use, perhaps because they are vanadium-based instead of zeolite-based. In order to investigate this, ICCT is paying for PEMS testing in Europe and on matching diesels sold in the US (e.g. compare a VW Passat 2.0L diesel sold in the US with one sold in Europe).

Reinhard Kolke from ADAC (the German car club) said the difference between EU and US systems is purely a question of urea dosage, not any hardware differences at all. He recommended that we measure the volume of the SCR catalyst + the volume of the urea tank to draw some rough conclusions about differences in dosage in EU and US. Thus, it would be very helpful to know the volume of the SCR catalyst. We also aren't sure there are no hardware differences, as the vanadium-based catalysts used in Europe have poor in-use performance, so we also want to know the type of SCR catalyst that is being used.

I hope you can help us out here.

John
734-355-1055